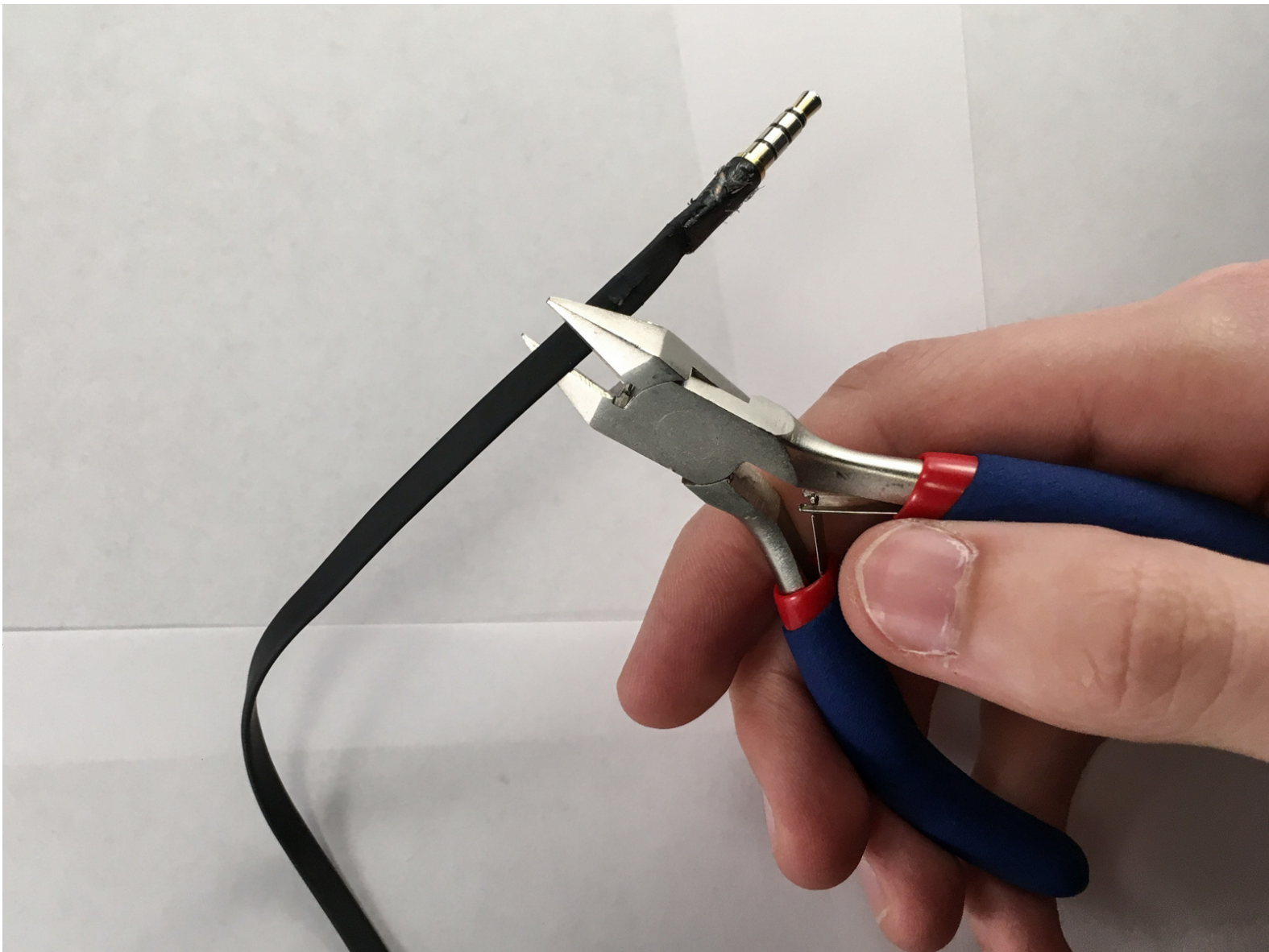




4-Pole Headphone Jack Replacement

Replace a damaged 4-Pole headphone jack (found in headphones with an in-line microphone) by removing it and soldering on a new connector.

Written By: Matthew Vaught



INTRODUCTION

Headphone jacks are frequently subjected to wear through their normal usage. Instead of purchasing a new pair of headphones, which can sometimes have a hefty cost, replacing the connector is often a cheaper choice.

The use of a soldering iron is required in order to complete this repair. Since the wires used in headphones are often very small, this repair is only recommended for individuals with decent amount of experience in soldering.

Extra precautions should be taken while using the soldering iron, they are extremely hot and you will be working in very small spaces. The use of an Electrician's Helping Hand tool is highly recommended.



TOOLS:

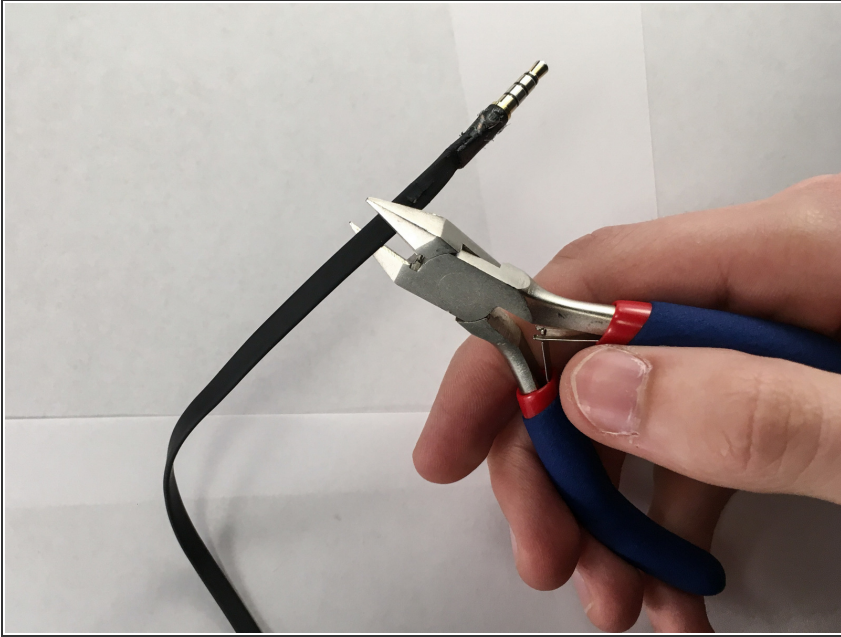
- [Soldering Station](#) (1)
- [Solder](#) (1)
- [helping hands](#) (1)
- [Flush Wire Cutters](#) (1)
- [Multimeter](#) (1)
- [iFixit Tech Knife](#) (1)



PARTS:

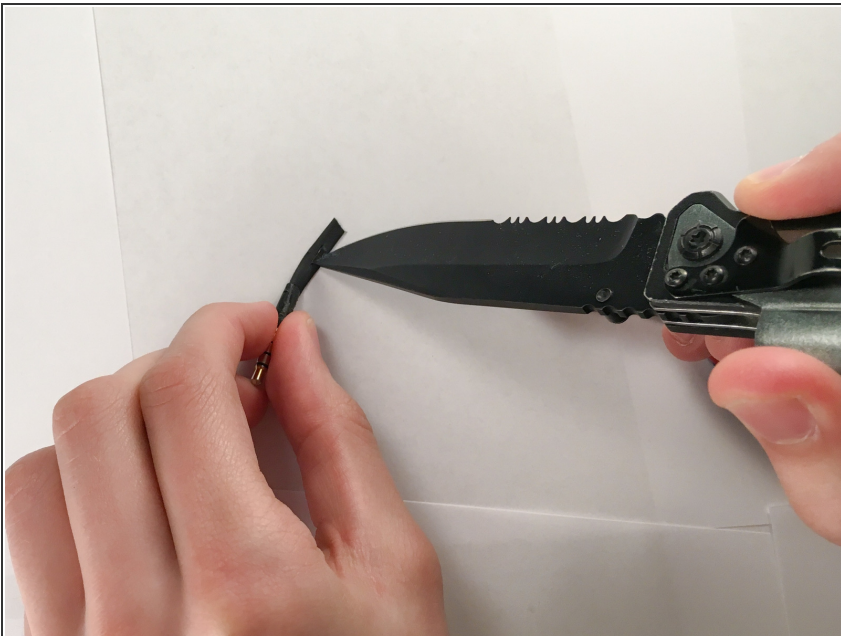
- [3.5mm plug](#) (1)
Make sure that it has four connection points on it.
- [Heat Shrink Tubing Assortment](#) (1)

Step 1 — 4-Pole 3.5mm Jack



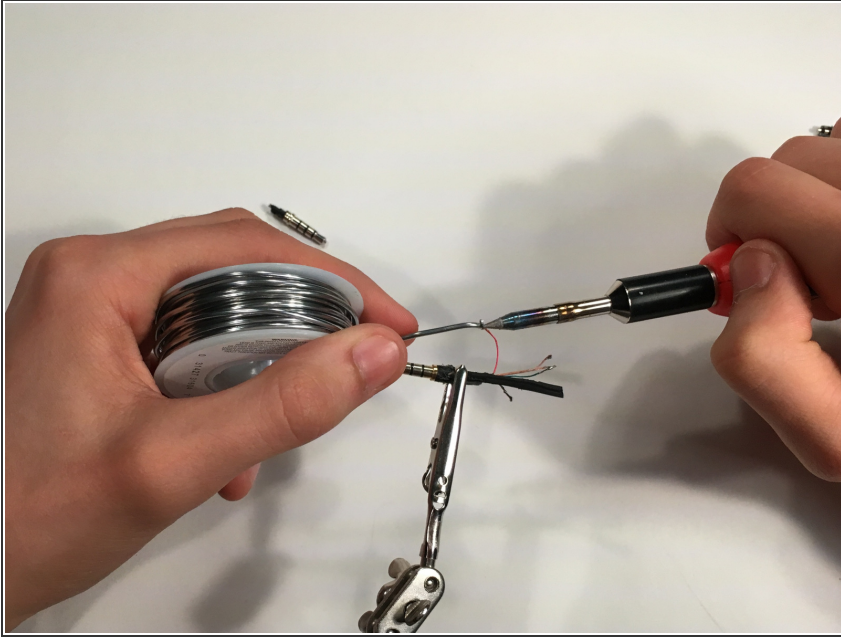
- Cut the headphone cable near the old headphone jack. Leave some cable attached to the jack.

Step 2





- Cut open the outer insulation of the cable connected to the old jack to expose the internal wires.

Step 3

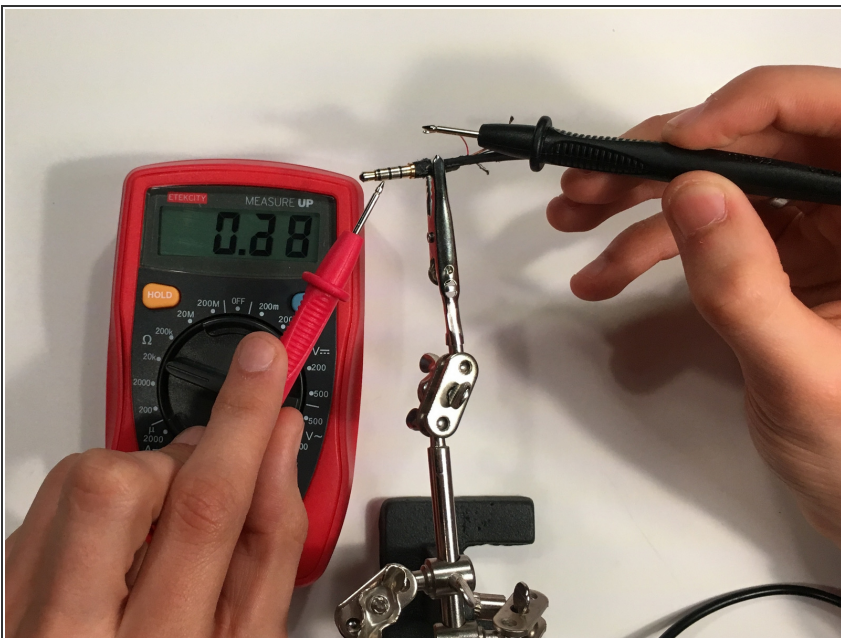



- Apply a small amount of solder to the tips of each of the internal wires.

 Make use of the Helping Hand tool to hold the wires while you apply the solder and iron.

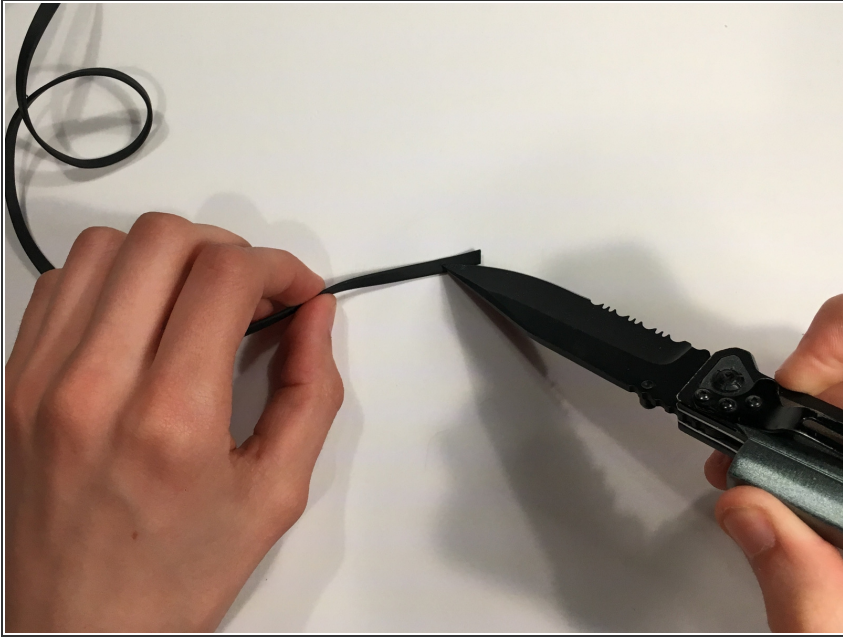
 Do not touch the soldering iron to the wire for a long period of time, you may melt through the wire.

Step 4



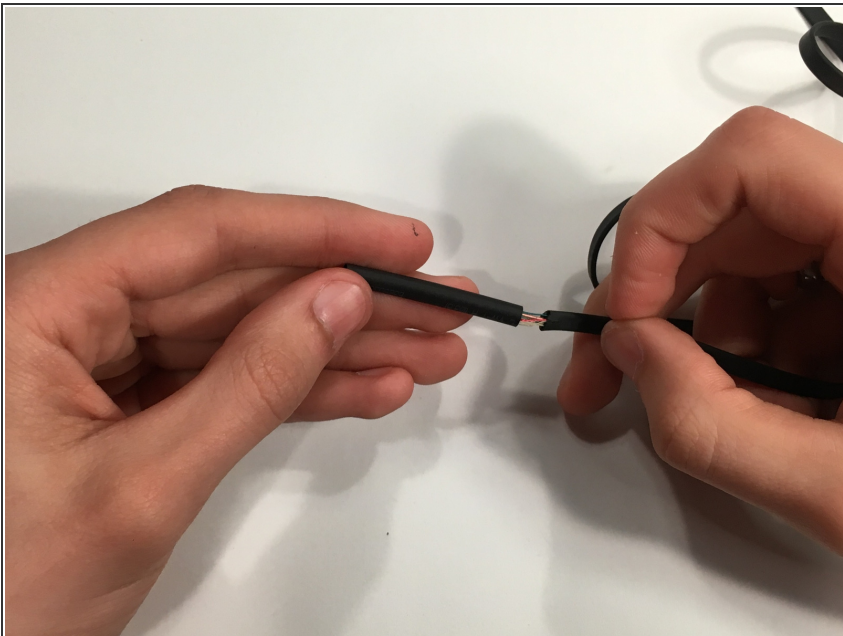
- Turn on the multimeter and set it to measure resistance.
- Select a wire and touch one of the multimeter leads to the soldered tip.
- Touch the other multimeter lead to each of the segments on the headphone jack until the multimeter indicates that the wire is connected.
-  Make sure to record what wire is connected to what pole of the jack.
- Repeat the process for each wire.

Step 5



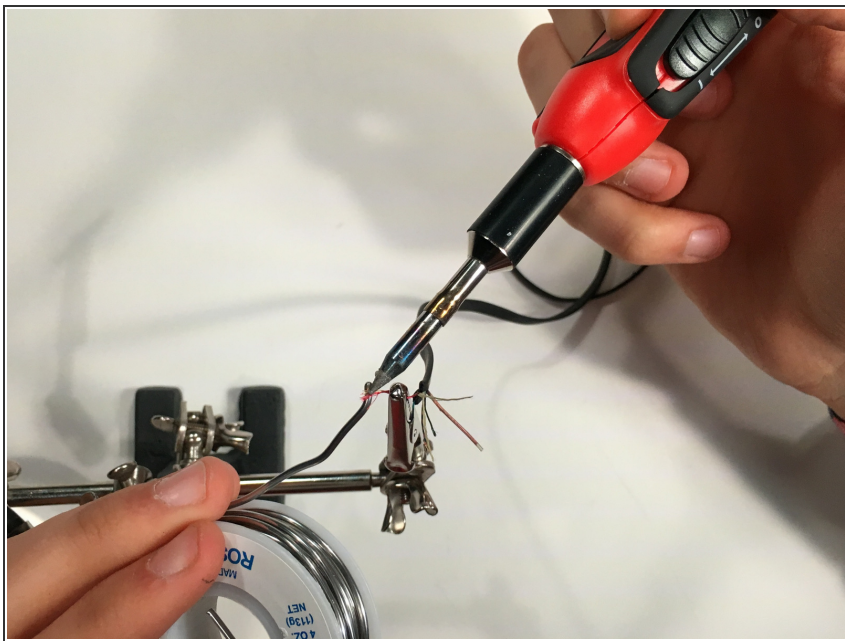
- Cut away the insulation on the wire connected to the headphones.

Step 6



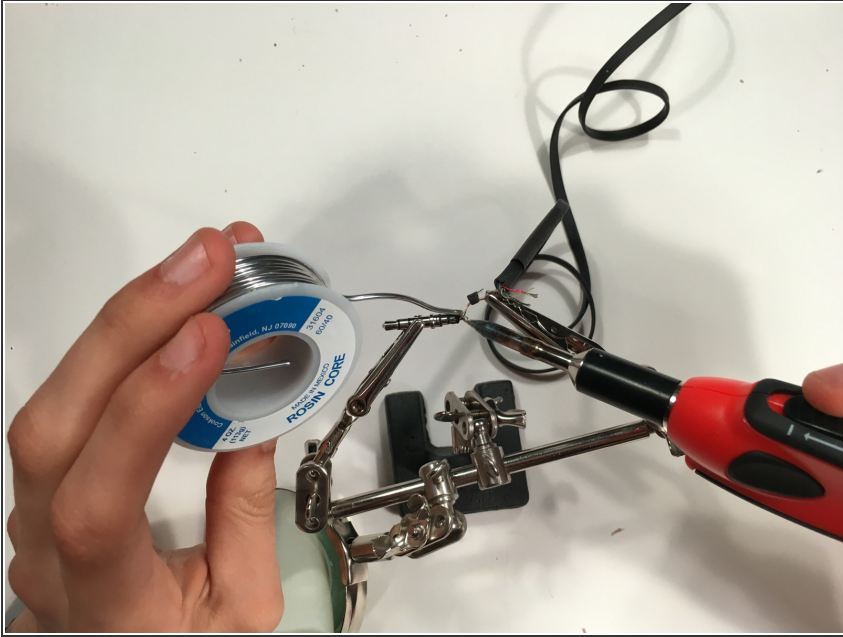
- Select an appropriately sized piece of shrink tubing.
- Slide the tubing over the wire.

Step 7



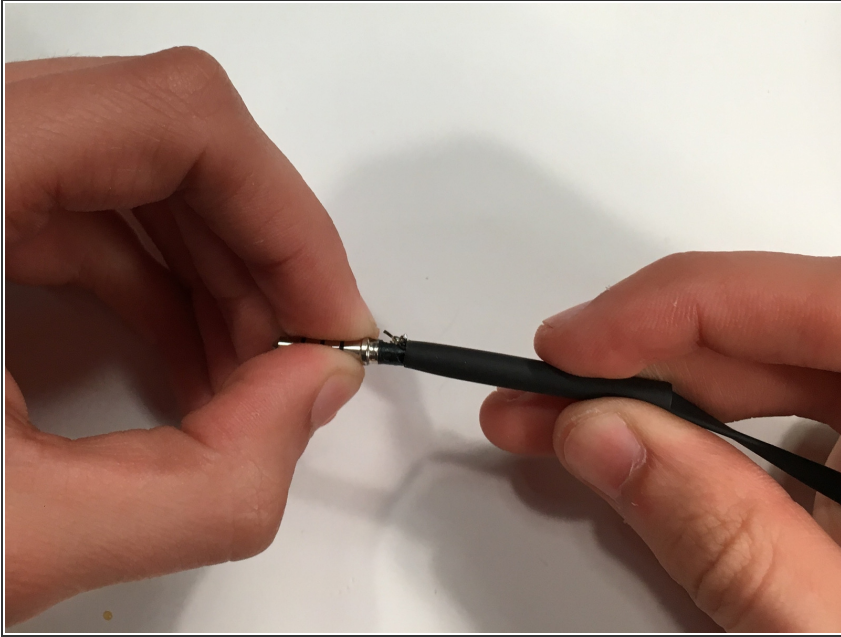
- Select a wire and apply a small amount of solder to the tip of the wire.
- Repeat this for every wire.

Step 8



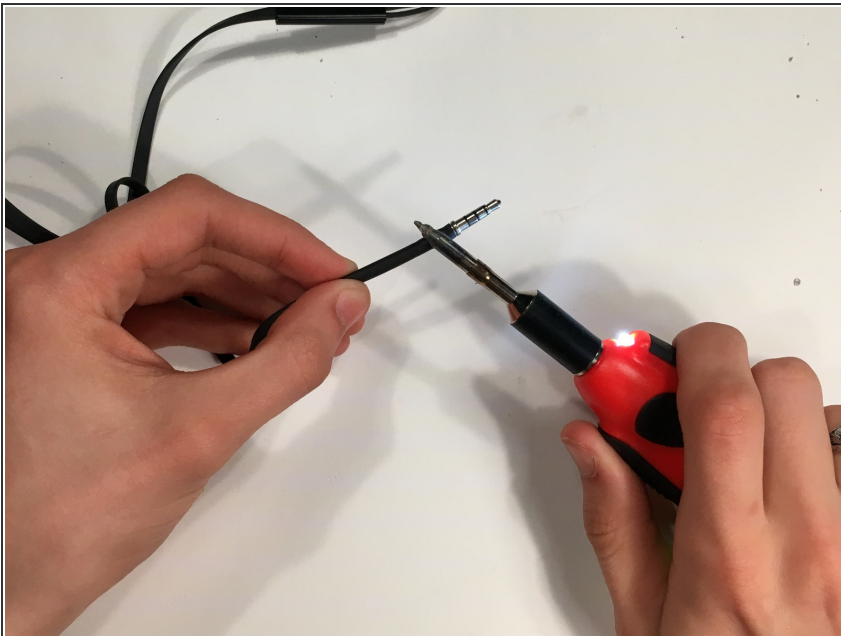
- Position a wire to the corresponding connection point on the jack.
- Carefully apply a small amount of solder to hold the wire in place.
- Repeat this for each wire.
- ★ Make sure to reference the mapping of wires to connection points that you created in Step 4.
- ⓘ When soldering the wires, be patient and meticulous about getting the right position to make a good connection.
- ⓘ If the internal wires do not have their own insulation, use a small bit of shrink tubing on each wire. This will prevent them from shorting across another wire.

Step 9



- Slide the shrink tubing back over the base of the jack, covering the soldered connections.

Step 10



- Use the flat side of the soldering iron to apply heat to the shrink tubing until it tightens on the wire.
- ❗ Alternatively, you could also use a heat gun or hair dryer.

You have now completed the replacement process. Plug it into an audio source and play some music to test your work.

